

Amendments to the Claims:

Rewrite the claims as set forth below. This listing of claims replaces all prior versions and listings of claims in the application:

Listing of the Claims:

1. (canceled)
2. (previously presented) The method of claim 21 further comprising, prior to rendering the one or more draw packets, providing the plurality of draw packets to a command processor such that the command processor checks for the set visibility query identifier for a draw packet based on the comparison.
3. (previously presented) The method of claim 21 wherein prior to rendering the one or more draw packets the method further includes fetching a plurality of indices for the one or more draw packets based on the visibility query identifier.
4. (canceled)
5. (previously presented) The method of claim 2 further comprising, prior to providing the plurality of draw packets to the command processor, stalling for a predetermined time interval to insure the setting of the visibility query identifier.

6. (previously presented) The method of claim 21 wherein comparing each of the plurality of draw packets to the bounding volume object includes at least one of the following: back-face culling, view frustrum comparison, user-clip plane discard, and hierarchical-z discard.

7. – 10. (canceled)

11. (currently amended) An apparatus for object based visibility culling, the apparatus comprising:

a graphics processing unit; and

a memory device storing executable instructions such that the graphics processing unit, in response to the executable instructions:

receives a plurality of draw packets;

compares each of the plurality of draw packets to a bounding volume object, wherein the bounding volume object is a low resolution geometric representation of a specific object identified as geometry through which viewing definitions are defined;

for each of the plurality of draw packets, if the draw packet is deemed potentially visible, sets a visibility query identifier for the draw packet, and using at least one of a plurality of identifiers that defines which of a plurality of hardware queries is to be updated; and

renders one or more draw packets having the set visibility query identifier.

12. (previously presented) The apparatus of claim 11 wherein the processor, in response to the executable instruction and prior to rendering the draw packets, provides the

plurality of draw packets to a command processor such that the command processor checks for the set visibility query identifier.

13. (previously presented) The apparatus of claim 11 wherein the processor, in response to the executable instructions, fetches a plurality of indices for the one or more draw packets.

14. (previously presented) The apparatus of claim 12 wherein the processor, in response to the executable instructions and when the visibility query identifier is not set, indicating that a particular draw packet is not visible, the command processor discards the draw packet.

15. (previously presented) The apparatus of claim 12 wherein the processor, in response to the executable instructions and prior to providing the plurality of draw packets to the command processor, stalls for a predetermined time interval to insure the setting of the visibility query identifier.

16. (previously presented) The apparatus of claim 11 wherein comparing each of the plurality of draw packets to the bounding volume object includes at least one of the following: back-face culling, view frustum comparison, user-clip plane discard, and hierarchical-z discard.

17. – 19. (canceled)

20. (previously presented) The method of claim 3 further comprising managing a plurality of visibility query identifiers that define which of a plurality of hardware queries is to be updated across multiple driver contexts.

21. (currently amended) A method for object based visibility culling performed by an apparatus that performs graphics processing, comprising:

receiving, by a graphics processing unit, a plurality of draw packets;

comparing, by the graphics processing unit, each of the plurality of draw packets to a bounding volume object, wherein the bounding volume object is a low resolution geometric representation of a specific object identified as geometry whose visibility status is desired; and

for each of the plurality of draw packets that are deemed potentially visible based on the comparison, electronically rendering, by the graphics processing unit, one or more draw packets deemed potentially visible.